

REMARKS

Reconsideration of the above-identified patent application in view of the present amendment and the following remarks is respectfully requested.

It is respectfully acknowledged that claims 15-22, 27, 29-32, 40, and 41 have been indicated as being allowed. It is also respectfully acknowledged that the Advisory Action of June 8, 2004 indicated that the written description rejection under 35 U.S.C. §112, first paragraph of claims 43-45 has been withdrawn.

This amendment cancels claims 2-14, 23-26, and 33-39, amends claim 46, and adds new claim 47-66.

Reconsideration of claim 1 is respectfully requested. One of skill in the art would not find the combined structures of the gas generating cartridges 12 and the printed circuit board 24 of Thorn to be a microelectromechanical system device (MEMS device) under any of the definitions of the MEMS set forth during prosecution of the present application. Given the definition relied upon in the final rejection of January 9, 2004, Thorn still fails to teach or suggest "an integrated micro device combining electrical and mechanical components." One of ordinary skill in the art would not consider the combination of the gas generating cartridges 12 and the printed circuit board 24 of Thorn as forming an integrated micro device, "micro" meaning "small or abnormally small." Webster's II, New College Dictionary (1999). Therefore, allowance of claim 1 is respectfully requested.

Claims 43-46 depend from claim 1 and are allowable for at least the same reasons as claim 1. Additionally, claims 43-46 are allowable for the specific limitations of each claim.

Specifically, Thorn fails to disclose that the MEMS device has a length of approximately one half of an inch and a width of approximately one half of an inch, as is recited in claim 43. Thorn also fails to disclose that each plenum of the plurality of plenums of the MEMS device has a depth of up to ten millimeters and has a diameter of up to 1.4 millimeters, as is recited in claims 44 and 45, respectively. Since Thorn fails to disclose these features of claims 43-45, anticipation of claims 43-45 by Thorn is improper and should be withdrawn. Therefore, allowance of claims 43-45 is respectfully requested.

Claim 46 has been amended to recite an inflator having a plurality of MEMS devices with each one of the MEMS devices including a plurality of plenums for storing energizable fluid sources. Thorn fails to teach or suggest an inflator having a plurality of MEMS devices with each MEMS device including a plurality of plenums. Since Thorn fails to disclose each feature of claim 46, anticipation of claim 46 by Thorn is improper and should be withdrawn. Therefore, allowance of claims 46 is respectfully requested.

New claim 47 recites an apparatus for helping to protect a vehicle occupant. The apparatus comprises an actuatable vehicle occupant protection device, an inflator that includes a plurality of microelectromechanical system devices (MEMS devices) that are energizable to cause actuation of the

protection device, and vehicle electric circuitry that is located remote from the inflator and that is operatively connected to the plurality of MEMS devices of the inflator. The vehicle electric circuitry is responsive to received sensory inputs for controlling energization of the plurality of MEMS devices. Thorn teaches mounting a power supply 20 and a deceleration sensor to the printed circuit board. (Col. 2, lines 23-26). Therefore, Thorn fails to teach or suggest vehicle electric circuitry that is located remote from the inflator. Since Thorn fails to disclose this feature of claim 47, allowance of claim 47 is respectfully requested.

Claims 48-50 depend from claim 47 and are allowable for the limitations recited in the claims as well as for the same reasons as claim 47.

Claim 51 recites that the MEMS device is a multi-layered structure having a first layer which houses a plurality of energizable fluid sources and a second layer which has electric circuitry for actuating the plurality of energizable fluid sources. Each one of the plurality of energizable fluid sources is in contact with the electric circuitry of the second layer. Thorn fails to teach or suggest a first layer which houses a plurality of energizable fluid sources. Moreover, Thorn fails to teach or suggest a second layer having electric circuitry that is in contact with the energizable fluid sources. Therefore, allowance of claim 51 is respectfully requested.

Claims 52-55 depend from claim 51 and are allowable for the limitations recited in the claims as well as for the same reasons as claim 51.

Claim 56 recites that the MEMS device is a multi-layered structure that includes a first layer having a plurality of fluid sources and a second layer having means for actuating the plurality of fluid sources. Claim 56 further recites that the first and second layers are bonded together. Thorn fails to teach or suggest a multi-layered device having first and second layers bonded together. Therefore, allowance of claim 56 is respectfully requested.

Claims 57-62 depend from claim 56 and are allowable for the limitations recited in the claims as well as for the same reasons as claim 56.

Claim 63 recites that the MEMS device includes a base portion. An electric circuit is formed on a first surface of the base portion and terminal pins extend from the electric circuit and outwardly of a second, opposite side of the base portion. Thorn fails to teach or suggest that the printed circuit board 24 includes terminal pins that extend outwardly of a side of the printed circuit board opposite an electric circuit. Since Thorn fails to teach or suggest the features of claim 63, allowance of claim 63 is respectfully requested.

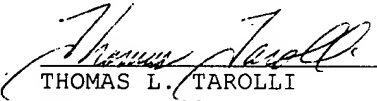
Claims 64-66 depend from claim 63 and are allowable for the limitations recited in the claims as well as for the same reasons as claim 63.

In view of the foregoing, it is respectfully submitted that the above-identified patent application is in condition

for allowance, and allowance of the above-identified patent application is respectfully requested.

Please charge any deficiency or credit any overpayment in the fees for this amendment to our Deposit Account No. 20-0090.

Respectfully submitted,


THOMAS L. TAROLLI
Reg. No. 20,177

TAROLLI, SUNDHEIM, COVELL,
& TUMMINO L.L.P.
526 Superior Avenue, Suite 1111
Cleveland, Ohio 44114-1400
Phone: (216) 621-2234
Fax: (216) 621-4072
Customer No.: 26,294